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EXAMINER

WINSTEDT, J

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 12/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/331,189

Applicant(s)
Heinrich, Engelhardt

Examiner
Jennifer Winstedt

Group Art Unit
2872



☒ Responsive to communication(s) filed on 9/22/00

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 16-40 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 16-40 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on 9/22/00 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 9/22/00 have been approved.

Claim Rejections - 35 U.S.C. § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 23, 24, and 36 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

✓ Regarding claim 23, how can the optical system for the image rotation be disposed after the ocular and still be disposed between the scanning mirror and the scanning lens as required in

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claim 16, since in the path of the light beam the ocular is disposed after both the scanning mirror and the scanning lens (see Figure 3).

✓ Regarding claim 24, how can the optical system for image rotation be disposed after the scanning lens and still be between the scanning lens and the scanning mirror as required in claim 16, since in the path of the light beam the scanning lens is disposed after the scanning mirror (see Figure 3).

✓ Regarding claim 36, how can the optical system for image rotation be disposed after the ocular and still be disposed between the tube lens and the objective as required by claim 29, since the ocular in the path of the light beam the ocular is disposed after both the objective and the tube lens (see Figure 1).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

✓ 6. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "an axially movable objective" in line 2 of the claim is indefinite. An objective has already been recited above. It is uncertain whether or not the axially movable objective of line 2 is the same as the objective already recited.

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Claim Rejections - 35 U.S.C. § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

8. Claims 29, 30, 37, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Yano.

Regarding claim 29, Yano discloses a microscope defining a path of rays and comprising an objective (15, Figure 1); an ocular (35, Figure 1); a tube lens (9, Figure 1); and an optical system for image rotation disposed in the path of rays of the microscope, wherein the optical system is disposed between the tube lens and objective in the path of rays of the microscope (12, Figure 1).

Regarding claim 30, Yano discloses that the optical system for rotation is a prism (12, Figure 1).

Regarding claim 37, Yano discloses that the optical system for image rotation serves to rotate all video image fed through the tube lens into the microscope (column 3, lines 37-38).

Regarding claim 38, Yano discloses that the tube lens comprises a fixed thick beam splitter to avoid interferences (9, Figure 1).

Regarding claim 39, Yano discloses an axially movable objective (15b, Figure 1).

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Claim Rejections - 35 U.S.C. § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 33, 34, 35, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Dewald et al.

Regarding claims 16, 17, 18, 20, 21, 22, and 25, White et al. discloses a confocal microscope defining a path of rays and comprising an ocular (EYE, Figure), a tube lens (BS, Figure) and a scanning lens (L1, Figure) and a scanning (B2, Figure) that are part of a laser scanner. White et al. does not disclose an optical system for image rotation disposed in the path of rays of the microscope; wherein the optical system is disposed between the scanning lens and the scanning mirror of the laser scanner in the path of the rays of the microscope, is a dove prism or a mirror system with an odd number of mirrors, such as a K mirror, and serves to rotate all scanning and video images fed through the tube lens into the microscope. Dewald et al. discloses an optical system for image rotation disposed in a path of rays (20, Figure 2), where the optical system for image rotation is disposed between a scanning lens (22, Figure 2) and a scanning mirror (16, Figure 2), is a dove prism (column 3, lines 13-15) or a mirror system with an odd number of mirrors, such as a K mirror (20, Figure 2), and serves to rotate all scanning and video

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images through the device (see Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the confocal microscope of White et al. an optical system for image rotation as Dewald et al. suggests in order to maintain the image right side up (column 1, lines 45-46; Dewald et al.) and thus make it easier for a viewer to make out the image.

Regarding claim 24, White et al. in view of Dewald et al. discloses the claimed invention as described above except for the optical system for image rotation disposed after the scanning lens. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation be disposed after the scanning lens, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 26, White et al. in view of Dewald et al. discloses that the tube lens comprises a fixed thick beam splitter to avoid interferences (BS, Figure; White et al.).

Regarding claims 29, 30, 31, 33, 34, 35, 37, and 38, White et al. in view of Dewald et al. discloses the claimed invention as described above except for the optical system for image rotation being disposed between the tube lens and the objective. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation be disposed between the tube lens and the objective, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

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Regarding claims 23 and 36, White et al. in view of Dewald et al. discloses the claimed invention as described above except for the optical system for image rotation being disposed after the ocular. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system be disposed after the ocular, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

11. Claims 19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Dewald et al. as applied to claims 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 33, 34, 35, 37, and 38 above, and further in view of Wasmund et al.

Regarding claim 19, White et al. in view of Dewald et al. discloses the claimed invention as described above except for the optical system for image rotation being an Abbe prism. Wasmund et al. discloses an optical system for image rotation that is an Abbe prism. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation of White et al. in view of Dewald et al. be an Abbe prism as Wasmund et al. suggests in order to be able to control the beam (column 3, line 66 - column 4, line 2; Wasmund et al.).

Regarding claim 32, White et al. in view of Dewald et al. further in view of Wasmund et al. discloses the claimed invention as described above except for the optical system for image rotation being disposed between the tube lens and the objective. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for

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image rotation be disposed between the tube lens and the objective, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Dewald et al. as applied to claims 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 33, 34, 35, 37, and 38 above, and further in view of Yano.

Regarding claim 27, White in view of Dewald et al. discloses the claimed invention except for an axially movable objective being provided. Yano discloses an axially movable objective being provided. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an axially movable objective in the confocal microscope of White et al. in view of Dewald et al. as Yano suggests in order to achieve fine focus adjustment (column 3, lines 49-50; Yano).

13. Claims 28 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Dewald et al. as applied to claims 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 33, 34, 35, 37, and 38 above, and further in view of Kapitza.

Regarding claim 28, White et al. in view of Dewald et al. discloses the claimed invention as described above except for an axially movable objective turret being provided. Kapitza discloses an axially movable objective turret (3, Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an axially movable

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objective turret in the confocal microscope of White et al. in view of Dewald et al. as Kapitza suggests in order to be able to have more than one view of the object.

Regarding claim 40, White et al. in view of Dewald et al. further in view of Kapitza discloses the claimed invention as described above except for the optical system for image rotation being disposed between the tube lens and the objective. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the optical system for image rotation be disposed between the tube lens and the objective, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Response to Arguments

14. In light of the amendments made to the drawings, the objection to the drawings is withdrawn.

15. In light of the amendments made to the specification, the objections to the specification are withdrawn.

16. Applicant's arguments with respect to claims 16-40 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion


17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

18. Any inquiry concerning the merits of this communication or earlier communications from the examiner should be directed to Jennifer Winstedt whose telephone number is (703) 305-0577. The fax number for the group is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


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Technology Center 2800

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JW

December 1, 2000